STIC Search Report
EIC 1700

USPTO

TO: Aaron Strange
Location: 3C16
Art Unit : 2153
February 19, 2004

Case Serial Number: 09/668253

From: Terese Esterheld
Location: EIC 2100 CPK. 2, 4B30
Phone: 308-7795

Terese.Esterheld@uspto.gov

Search Notes

Dear Examiner Strange;

Enclosed are the search results of 09/668253. I have searched for Modifying the packet by inserting or a header into the Preamble.

Please look over the complete packet. I marked one item, but there may also be other items of value to you.

If I can be of further assistance, please let me know.

Terese Esterheld

sira
Search and Information
Resources Administration

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Set      Items    Description
S1       27341    AU=(BECHTOLSHEIM, A? OR BECHTOLSHEIM A? OR SUZUKI, H? OR S-
                  UZUKI H? OR RUSU, M? OR RUSU M? OR FRANTZ, P? OR FRANTZ P? OR
                  PRASAD, S? OR PRASAD S?)
S2        1939    S1 AND IC=G06F?
S3         657    S2 AND IC=G06F-015?
S4           5    S3 AND IC=G06F-015/173
S5           2    S1 AND PACKET AND OPTIC?()NETWORK?
S6           7    S4 OR S5
S7           0    AU=BECHTOLSHEIM A? AND AU=SUZUKI H? AND AU=RUSU M? AND AU=-
                  FRANTZ P? AND AU=PRASAD S?
?  show files
File 347:JAPIO Oct 1976-2003/Oct(Updated 040202)
         (c) 2004 JPO & JAPIO
File 348:EUROPEAN PATENTS 1978-2004/Feb W02
         (c) 2004 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20040212,UT=20040205
         (c) 2004 WIPO/Univentio
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200411
         (c) 2004  Thomson Derwent
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6/5/3   (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00345514
High-speed optical packet switching system using optical buffer between incoming and outgoing channels.
Schnelles optisches Paketvermittlungssystem mit optischen Puffern zwischen ankommenden und abgehenden Kanalen.
Systeme de commutation optique de paquets a haute vitesse utilisant un tampon optique entre les canaux d'entree et de sortie.
PATENT ASSIGNEE:
  NEC CORPORATION, (236690), 7-1, Shiba 5-chome Minato-ku, Tokyo 108-01, (JP), (applicant designated states: DE;FR;GB;SE)
INVENTOR:
  Suzuki, Syuji c/o NEC Corporation, 33-1, Shiba 5-chome, Minato-ku Tokyo, (JP)
  Suzuki, Hiroshi c/o NEC Corporation , 33-1, Shiba 5-chome, Minato-ku Tokyo, (JP
LEGAL REPRESENTATIVE:
  VOSSIUS & PARTNER (100311), Postfach 86 07 67, D-81634 Munchen, (DE)
PATENT (CC, No, Kind, Date):   EP 347903   A2   891227 (Basic)
                               EP 347903   A3   910911
                               EP 347903   B1   940928
APPLICATION (CC, No, Date):   EP 89111368 890622;
PRIORITY (CC, No, Date): JP 88156126 880623
DESIGNATED STATES: DE; FR; GB; SE
INTERNATIONAL PATENT CLASS: H04L-012/54; H04L-012/00; H04B-010/00; H04J-014/00;
CITED REFERENCES (EP A):
  JOURNAL OF LIGHTWAVE TECHNOLOGY, vol. LT-4, no. 7, July 1986, pages 864-869; D.B. PAYNE et al.: "Transparent single-mode fiber optical networks"
  TOPICAL MEETING ON PHOTONIC SWITCHING, vol. 13, March 1987, pages 132-134, New York, US; H. GOTO: "Photonic time-division switching technology"
  TOPICAL MEETING ON PHOTONIC SWITCHING, vol. 13, March 1987, pages 141-143, New York, US, R.A. THOMPSON: "Optimizing photonic variable-integer-delay circuits"
  GLOBAL TELECOMMUNICATIONS CONFERENCE'87, Tokyo, 15th - 18th November 1987, pages 1861-1865, New York, US; K.Y. ENG: "A photonic knockout switch for high-speed packet networks";

ABSTRACT EP 347903 A2
    In an optical **packet** switching system, a plurality of first wavelength tunable devices (13) are connected respectively to incoming line terminals. In response to an incoming signal at the associated incoming line terminal, each of the first wavelength tunable devices generate an optical **packet** of a particular wavelength determined by a first wavelength selection signal supplied from a controller (14). In one embodiment, packets from the first wavelength tunable devices are switched through one or more paths set up by an optical space division switch (15) to one of a plurality of optical buffers (16). Second wavelength tunable devices (17) are respectively coupled to the outputs of the optical buffers for detecting a **packet** of a desired wavelength in response to a second wavelength selection signal from the controller (14) and applying the detected **packet** to one of outgoing line terminals. Each of the optical buffers is made up of an optical coupler having parallel waveguides one of which is disposed in the signal transmission path, the other being disposed in an optical loop for

recirculating a **packet** .
ABSTRACT WORD COUNT: 180

LEGAL STATUS (Type, Pub Date, Kind, Text):
 Application: 891227 A2 Published application (A1with Search Report
                             ;A2without Search Report)
 Examination: 891227 A2 Date of filing of request for examination:
                             890719
 Search Report: 910911 A3 Separate publication of the European or
                             International search report
 Examination: 940112 A2 Date of despatch of first examination report:
                             931125
 Grant: 940928 B1 Granted patent
 Oppn None: 950920 B1 No opposition filed
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text   Language   Update   Word Count
        CLAIMS A (English)   EPBBF1   1663
        CLAIMS B (English)   EPBBF1   1800
        CLAIMS B (German)   EPBBF1   1577
        CLAIMS B (French)   EPBBF1   2075
        SPEC A   (English)   EPBBF1   5262
        SPEC B   (English)   EPBBF1   5214
Total word count - document A   6925
Total word count - document B   10666
Total word count - documents A + B   17591

  6/5/4   (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015357998   **Image available**
WPI Acc No: 2003-418936/200339
XRPX Acc No: N03-334331
   Packet **transmission method using synchronous** optical   network ,
  involves allocating time-division multiplex transmission band to user
  according to channel band of packet **frame**
Patent Assignee: FUJITSU LTD (FUIT); KOSEKI S (KOSE-I); SHIMADA Y
  (SHIM-I); SUZUKI H (SUZU-I)
Inventor: KOSEKI S; SHIMADA Y; **SUZUKI H**
Number of Countries: 002 Number of Patents: 002
Patent Family:
Patent No   Kind   Date   Applicat No   Kind   Date   Week
US 20030043838 A1   20030306 US 200115262   A   20011212 200339 B
JP 2003069519 A   20030307 JP 2001260375   A   20010829 200339

Priority Applications (No Type Date): JP 2001260375 A 20010829
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
US 20030043838 A1   22 H04B-007/212
JP 2003069519 A   16 H04J-003/00
Abstract (Basic): US 20030043838 A1
        NOVELTY - The method involves mapping a **packet** frame of a user to
     a payload of a minimum unit synchronous frame of optical transmission
     paths so as to allocate a time-division multiplex transmission band to
     user according to a channel band of the **packet** frame.
        DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for
     packet transmission device.
        USE - For transmitting **packet** through synchronous loptical

network (SONET).

ADVANTAGE - By allocating time-division multiplex transmission band according to user's needs, the encapsulation into an asynchronous transfer mode (ATM) cell is omitted. Therefore an improved efficiency in **packet** transmission is achieved and a transparent local area network (LAN) service (TLS) is realized.

DESCRIPTION OF DRAWING(S) - The figure shows the configuration of the **packet** transmission system.

pp; 22 DwgNo 6/15

Title Terms: **PACKET** ; TRANSMISSION; METHOD; SYNCHRONOUS; OPTICAL; NETWORK; ALLOCATE; TIME; DIVIDE; MULTIPLEX; TRANSMISSION; BAND; USER; ACCORD; CHANNEL; BAND; **PACKET** ; FRAME

Derwent Class: W01; W02
International Patent Class (Main): H04B-007/212; H04J-003/00
File Segment: EPI

6/5/5   (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

015357641   **Image available**
WPI Acc No: 2003-418579/200339
XRPX Acc No: N03-333976
  Virtual private network service system controls transfer of packet of corresponding user by referencing routing table
Patent Assignee: FUJITSU LTD (FUIT); SUZUKI H (SUZU-I)
Inventor: **SUZUKI H**
Number of Countries: 002   Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030041170	A1	20030227	US 2001998550	A	20011129	200339	B
JP 2003069609	A	20030307	JP 2001253308	A	20010823	200339	

Priority Applications (No Type Date): JP 2001253308 A 20010823
Patent Details:

Patent No	Kind Lan	Pg	Main IPC	Filing Notes
US 20030041170 A1		20	G06F-015/173	
JP 2003069609 A		15	H04L-012/56	

Abstract (Basic): US 20030041170 A1
NOVELTY - A router includes virtual router unit corresponding to each user of virtual private network service. The virtual router unit includes routing table for storing routing information for transferring a packet of corresponding user, and routing unit for controlling transfer of packet of corresponding user by referencing routing table.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for router apparatus.

USE - For providing virtual private network service by using internet protocol network.

ADVANTAGE - A routing table is separated for each virtual private network (VPN) and VPN service is provided by using routing table, so that security of each virtual private network is improved.

DESCRIPTION OF DRAWING(S) - The figure shows the virtual private network service process.

pp; 20 DwgNo 2/13

Title Terms: VIRTUAL; PRIVATE; NETWORK; SERVICE; SYSTEM; CONTROL; TRANSFER; PACKET; CORRESPOND; USER; REFERENCE; ROUTE; TABLE

Derwent Class: W01
International Patent Class (Main): **G06F-015/173** ; H04L-012/56

International Patent Class (Additional): H04L-012/46
File Segment: EPI

6/5/6 **(Item 3 from file: 350)**
DIALOG(R)File 350:Derwent WPIX
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014470608 **Image available**
WPI Acc No: 2002-291311/200233
XRPX Acc No: N02-227453
   Printing method for print system has server which outputs printing data
   corresponding to positional information included in printing request
   received from printer in response to printing instruction from mobile
   terminal
Patent Assignee: CANON KK (CANO); FUKUNAGA S (FUKU-I); INOSE T (INOS-I);
   KIMURA T (KIMU-I); SUZUKI H (SUZU-I); TAKAGI E (TAKA-I); TAKAKU M
   (TAKA-I)
Inventor: FUKUNAGA S; INOSE T; KIMURA T; **SUZUKI H** ; TAKAGI E; TAKAKU M
Number of Countries: 002 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20020016836	A1	20020207	US 2001893647	A	20010629	200233	B
JP 2002014790	A	20020118	JP 2000199928	A	20000630	200233	
JP 2002014779	A	20020118	JP 2000199926	A	20000630	200233	
JP 2002014780	A	20020118	JP 2000199930	A	20000630	200233	
JP 2002014781	A	20020118	JP 2000199931	A	20000630	200233	

Priority Applications (No Type Date): JP 2000199931 A 20000630; JP
   2000199926 A 20000630; JP 2000199928 A 20000630; JP 2000199930 A 20000630
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020016836	A1		30	G06F-015/173	
JP 2002014790	A		9	G06F-003/12	
JP 2002014779	A		16	G06F-003/12	
JP 2002014780	A		9	G06F-003/12	
JP 2002014781	A		13	G06F-003/12	

Abstract (Basic): US 20020016836 A1
     NOVELTY - The system includes a mobile terminal (105) for
   transmitting printing instruction to the input of printer (108). The
   printer transmits printing request including positional information of
   print data to server, in response to printing instruction. Server (101)
   transmits the printing data corresponding to positional information
   included in the request to the printer.
     DETAILED DESCRIPTION - INDEPENDENT
     CLAIMS are also included for the following:
     (a) Printing method;
     (b) Server;
     (c) Printing program;
     (d) Printer;
     (e) Recorded medium storing printing program
     USE - Printing system comprising server, mobile terminal such as
   cellular phone, personal digital assistant and printer connected to
   networks such as Internet, intranet.
     ADVANTAGE - By designating the printing data, printing is performed
   irrespective of the state of printer and the usage efficiency is
   improved. By transmitting printing instructions to the printer, high
   speed printing is enabled and repetition of the same printing procedure
   is avoided. High quality printing is obtained and the burden of
   downloading large volume data is reduced.

DESCRIPTION OF DRAWING(S) - The figure shows the construction of
printing system.
     Server (101)
     Mobile terminal (105)
     Printer (108)
     pp; 30 DwgNo 1/17
Title Terms: PRINT; METHOD; PRINT; SYSTEM; SERVE; OUTPUT; PRINT; DATA;
  CORRESPOND; POSITION; INFORMATION; PRINT; REQUEST; RECEIVE; PRINT;
  RESPOND; PRINT; INSTRUCTION; MOBILE; TERMINAL
Derwent Class: P75; T01; W01
International Patent Class (Main): **G06F-003/12** ; **G06F-015/173**
International Patent Class (Additional): B41J-005/30; B41J-029/38;
  G06F-013/00 ; H04L-012/28; H04N-001/00; H04N-001/21
File Segment: EPI; EngPI

 6/5/7   **(Item 4 from file: 350)**
DIALOG(R)File 350:Derwent WPIX
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012011244   **Image available**
WPI Acc No: 1998-428154/199836
XRPX Acc No: N98-334134
  **Network terminal device connected to host device with memory for storing
  files - selects item from displayed items, checks if stored in memory,
  down-loads from host computer to memory if file corresponding to selected
  indicated item if not stored in memory, processor executes process based
  on down-loaded file**
Patent Assignee: CASIO COMPUTER CO LTD (CASK)
Inventor: **SUZUKI H**
Number of Countries: 010 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9833129	A1	19980730	WO 98JP326	A	19980127	199836	B
JP 10275132	A	19981013	JP 981644	A	19980107	199851	
EP 894307	A1	19990203	EP 98900760	A	19980127	199910	
			WO 98JP326	A	19980127		
JP 10333967	A	19981218	JP 97345211	A	19971215	199910	
US 20020007391	A1	20020117	WO 98JP326	A	19980127	200212	
			US 98142431	A	19980902		
US 6493743	B2	20021210	WO 98JP326	A	19980127	200301	
			US 98142431	A	19980902		

Priority Applications (No Type Date): JP 97345211 A 19971215; JP 9714199 A
  19970128; JP 9785281 A 19970403
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9833129	A1	E	73	G06F-017/30	

   Designated States (National): CN KR US
   Designated States (Regional): DE FR GB IT NL SE

| JP 10275132 | A | | 12 | G06F-015/00 | |
| EP 894307 | A1 | E | | G06F-017/30 | Based on patent WO 9833129 |

   Designated States (Regional): DE FR GB IT NL SE

JP 10333967	A		11	G06F-012/00	
US 20020007391	A1			G06F-015/173	
US 6493743	B2			G06F-015/16	Based on patent WO 9833129

Abstract (Basic): WO 9833129 A
     The device has a memory for storing files and a mechanism for
   displaying indication items for specifying the files on a display

screen. The desired indication item is selected from the displayed
items. It is determined whether or not a file corresponding to the
indication item selected is stored in the memory.

The file corresponding to the selected indicated item is
down-loaded from the host computer (20) to the memory, when it is
determined that the file is not stored. A processor executes a process
based on the file down-loaded by the
down-loading mechanism.

USE - For accessing host computer via communications network from
data processing terminal device, down-loading variety of files and
executing data processing.

ADVANTAGE - Can execute file immediately it is down-loaded.

Dwg.1/15

Title Terms: NETWORK; TERMINAL; DEVICE; CONNECT; HOST; DEVICE; MEMORY;
   STORAGE; FILE; SELECT; ITEM; DISPLAY; ITEM; CHECK; STORAGE; MEMORY; DOWN;
   LOAD; HOST; COMPUTER; MEMORY; FILE; CORRESPOND; SELECT; INDICATE; ITEM;
   STORAGE; MEMORY; PROCESSOR; EXECUTE; PROCESS; BASED; DOWN; LOAD; FILE

Derwent Class: T01

International Patent Class (Main): **G06F-012/00** ; **G06F-015/00** ;
   G06F-015/16 ; **G06F-015/173** ; **G06F-017/30**

International Patent Class (Additional): **G06F-003/14** ; **G06F-009/445** ;
   G06F-013/00

File Segment: EPI

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Set      Items    Description
S1       46099    AU=(BECHTOLSHEIM, A? OR BECHTOLSHEIM A? OR SUZUKI, H? OR S-
                  UZUKI H? OR RUSU, M? OR RUSU M? OR FRANTZ, P? OR FRANTZ P? OR
                  PRASAD S? OR PRASAD S?)
S2         105    S1 AND PACKET()SWITCH?
S3           6    S2 AND ETHERNET
S4          28    S1 AND ETHERNET
S5          12    S4 AND (PREAMBLE OR PACKET?)
S6          12    S3 OR S5
?  show files
File    2:INSPEC 1969-2004/Feb W2
          (c) 2004 Institution of Electrical Engineers
File    6:NTIS 1964-2004/Feb W3
          (c) 2004 NTIS, Intl Cpyrght All Rights Res
File    8:Ei Compendex(R) 1970-2004/Feb W2
          (c) 2004 Elsevier Eng.  Info. Inc.
File   34:SciSearch(R) Cited Ref Sci 1990-2004/Feb W2
          (c) 2004 Inst for Sci Info
File   35:Dissertation Abs Online 1861-2004/Jan
          (c) 2004 ProQuest Info&Learning
File   65:Inside Conferences 1993-2004/Feb W3
          (c) 2004 BLDSC all rts. reserv.
File   92:IHS Intl.Stds.& Specs. 1999/Nov
          (c) 1999 Information Handling Services
File   94:JICST-EPlus 1985-2004/Feb W2
          (c)2004 Japan Science and Tech Corp(JST)
File   95:TEME-Technology & Management 1989-2004/Feb W1
          (c) 2004 FIZ TECHNIK
File   99:Wilson Appl. Sci & Tech Abs 1983-2004/Jan
          (c) 2004 The HW Wilson Co.
File  103:Energy SciTec 1974-2004/Feb B1
          (c) 2004 Contains copyrighted material
File  144:Pascal 1973-2004/Feb W2
          (c) 2004 INIST/CNRS
File  202:Info. Sci. & Tech. Abs. 1966-2004/Jan 20
          (c) 2004 EBSCO Publishing
File  233:Internet & Personal Comp. Abs. 1981-2003/Sep
          (c) 2003 EBSCO Pub.
File  239:Mathsci 1940-2004/Mar
          (c) 2004 American Mathematical Society
File  275:Gale Group Computer DB(TM) 1983-2004/Feb 17
          (c) 2004 The Gale Group
File  434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
          (c) 1998 Inst for Sci Info
File  647:CMP  Computer Fulltext 1988-2004/Feb W2
          (c) 2004 CMP Media, LLC
File  674:Computer News Fulltext 1989-2004/Feb W2
          (c) 2004 IDG Communications
File  696:DIALOG Telecom. Newsletters 1995-2004/Feb 17
          (c) 2004 The Dialog Corp.
```

6/5/1   (Item 1 from file: 2)
DIALOG(R)File   2:INSPEC
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7498487   INSPEC Abstract Number: B2003-02-6210L-191, C2003-02-5620W-107
  Title: Compact equation of TCP throughput estimation at upgrading bottleneck link speed

  Author(s): Honda, Y.; Kashio, J.; Sugimori, T.; Kitano, F.; **Suzuki, H.**
  Author Affiliation: Fac. of Eng., Mie Univ., Tsu, Japan

  Abstract: This paper considers a network in which one of the links is a communication bottleneck, and the speed of that link is upgraded. A simple method is proposed for calculating the effect of the upgrade on the throughput of TCP communication passing through the link. As the first step, a formula for the TCP communication throughput is proposed, which is a function of the mean window size of the TCP flow control, the round-trip time, and the **packet** loss ratio. The waiting time in the router, which is the major factor determining the round-trip time, is approximated by the $M/M/1/m$ queue. By combining those two expressions, the change of the throughput by upgrading the link speed is calculated. To verify the validity of the throughput calculation and the router model, the change of the TCP communication throughput in upgrading the speed of the bottleneck link is calculated, and the result is compared to the result of actual measurements in an experimental network composed of PPP (point-to-point protocol) and **Ethernet** . It is seen that, although it is simple, the proposed model agrees well with the actual measurement. The method is applied to the network between Mie University and SINET. The effect of the link speed upgrading on TCP throughput is examined and verified. The obtained result is expected to be useful in network design and in estimating the link speed required to dissolve a bottleneck. (8 Refs)
  Subfile: B C
  Descriptors: Internet; local area networks; parameter estimation; queueing theory; telecommunication congestion control; telecommunication network planning; telecommunication network routing; telecommunication traffic; transport protocols
  Identifiers: TCP throughput estimation; bottleneck link; speed upgrade; TCP flow control; round-trip time; **packet** loss ratio; router waiting time ; point-to-point protocol; **Ethernet** ; Mie University; SINET; network design; Internet traffic
  Class Codes: B6210L (Computer communications); B6150P (Communication network design, planning and routing); B6150M (Protocols); B6150J (Queueing systems); C5620W (Other computer networks); C5620L (Local area networks); C5640 (Protocols); C5670 (Network performance)

6/5/2   (Item 2 from file: 2)
DIALOG(R)File   2:INSPEC
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7154768   INSPEC Abstract Number: B2002-02-6150J-007, C2002-02-1140C-004
  Title: Using dynamic buffer limiting to protect against belligerent flows

in high-speed networks
   Author(s): Ertemalp, F.; Cheriton, D.R.; **Bechtolsheim, A.**
   Conference Title: Proceedings Ninth International Conference on Network Protocols. ICNP 2001   p.230-40
   Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA
   Publication Date: 2001 Country of Publication: USA   xii+351 pp.
   ISBN: 0 7695 1429 4   Material Identity Number: XX-2001-02624
   U.S. Copyright Clearance Center Code: 1092-1658/01/$17.00
   Conference Title: Proceedings Ninth International Conference on Network Protocols. ICNP 2001
   Conference Sponsor: IEEE; IEEE Comput. Soc.; IEEE Comput. Soc., TCSE
   Conference Date: 11-14 Nov. 2001   Conference Location: Riverside, CA, USA
   Language: English   Document Type: Conference Paper (PA)
   Treatment: Theoretical (T)

   Abstract: Conventional QoS mechanisms have focused primarily on providing better than normal service for some flows over others. With networks moving to much higher speeds and reasonable provisioning, best efforts access to network resources is adequate for common applications except when a belligerent flow attempts to consume an excessive amount of bandwidth. Any mechanism that attempts to contain such a flow must be able to operate at wirespeed in hardware. In this environment, conventional QoS mechanisms are not sufficient, either because they do not have mechanisms to contain these belligerent flows or because they are not practical to implement in hardware. In this paper we describe dynamic buffer limiting (DBL), a buffer and queue management mechanism designed to recognize and handle belligerent flows at very high speed and suitable for hardware implementation. (13 Refs)
   Subfile: B C
   Descriptors: buffer storage; local area networks; **packet switching** ; quality of service; queueing theory; telecommunication congestion control; transport protocols
   Identifiers: dynamic buffer limiting; high-speed networks; belligerent flows protection; QoS mechanisms; network resources; bandwidth; queue management; buffer management; TCP flows; **Ethernet** switch; **packet** size
   Class Codes: B6150J (Queueing systems); B0240C (Queueing theory); B6210L (Computer communications); B6150M (Protocols); C1140C (Queueing theory); C5620L (Local area networks); C5640 (Protocols)

   6/5/3   (Item 3 from file: 2)

6725545   INSPEC Abstract Number: B2000-11-6150M-088, C2000-11-5640-050
   Title: **Compact equation of TCP throughput estimation at upgrading bottleneck link**
   Author(s): Honda, Y.; Kashio, J.; Sugimori, T.; Kitano, F.; **Suzuki, H.**
   Author Affiliation: Fac. of Eng., Mie Univ., Tsu, Japan
   Journal: Transactions of the Institute of Electronics, Information and Communication Engineers B   vol.J83-B, no.6   p.755-62
   Publisher: Inst. Electron. Inf. & Commun. Eng,
   Publication Date: June 2000 Country of Publication: Japan
   CODEN: DJTBEU   ISSN: 0913-5715
   SICI: 0913-5715(200006)J83B:6L.755:CETE;1-Q
   Material Identity Number: K839-2000-008
   Language: Japanese   Document Type: Journal Paper (JP)
   Treatment: Theoretical (T); Experimental (X)

   Abstract: This paper presents a convenient method to estimate the TCP throughput when a bottleneck portion of a network has been upgraded. We

propose a equation to estimate the TCP throughput, which is expressed by functions of the average of the window size of TCP flow control, RTT and **packet** loss rate. The waiting time at the router, which contribute to RTT, is derived by the application of the M/M/1/m queueing model, where m is the number of buffers. These two equation are simultaneously solved to find the improved throughput when the bottleneck link is upgraded. The validity of the derived equation is tested by an experimental network which consists of PPP and **Ethernet** . The bottleneck PPP link speed is changed. The derived equations are simple but well fit the experimental value. The equation is also applied to estimate the increase of the TCP throughput if the link between Mie University and SINET is upgraded. (8 Refs)

Subfile: B C

Descriptors: buffer storage; local area networks; **packet switching** ; parameter estimation; performance evaluation; queueing theory; telecommunication links; transport protocols

Identifiers: TCP throughput estimation; bottleneck link upgrading; compact equation; TCP flow control; window size; RTT; **packet** loss rate; router waiting time; M/M/1/m queueing model; experimental network; **Ethernet** ; bottleneck PPP link speed; Mie University; SINET

Class Codes: B6150M (Protocols); B6210L (Computer communications); B0240C (Queueing theory); B6150J (Queueing systems); C5640 (Protocols); C5620L (Local area networks); C1220 (Simulation, modelling and identification); C5670 (Network performance); C1140C (Queueing theory)

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6/5/4   (Item 4 from file: 2)
DIALOG(R)File   2:INSPEC
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5552909   INSPEC Abstract Number: B9705-6210L-165, C9705-5610N-002
 Title: **FX1000: a high performance single chip Gigabit** Ethernet **NIC**
Author(s): Ross, M.; **Bechtolsheim, A.** ; Le, M.T.; O'Sullivan, J.
Conference Title: Digest of Papers. COMPCON Spring 97. Forty-Second IEEE Computer Society International Conference Proceedings (Cat. No.97CB36028) p.218-23

Abstract: We present the design of the FX1000, a high performance single chip Gigabit **Ethernet** NIC. With a 64 bit, 66 MHz PCI bus interface the chip can maintain a throughput of 2 Gbps between memory and the network. The 64-bit address also allows the FX1000 to address very large system memory. In addition, it transmits and receives **packets** with minimal assistance from the CPU. Furthermore, the FX1000 performs TCP checksum calculation and IEEE 802.1q virtual LAN processing in hardware. (0 Refs)

Subfile: B C

Descriptors: IEEE standards; local area networks; network interfaces; **packet switching** ; performance evaluation; system buses; telecommunication standards

Identifiers: FX1000; single chip Gigabit **Ethernet** NIC; high performance ; PCI bus interface; **packet** sending; very large system memory; CPU; TCP checksum calculation; IEEE 802.1q; virtual LAN processing; network

interface controller; 64 bit; 66 MHz; 2 Gbit/s
  Class Codes: B6210L (Computer communications); B6150C (Communication switching); C5610N (Network interfaces); C5620L (Local area networks); C5610S (System buses)
  Numerical Indexing: word length 6.4E+01 bit; frequency 6.6E+07 Hz; bit rate 2.0E+09 bit/s

  6/5/5   (Item 5 from file: 2)

4857968   INSPEC Abstract Number: B9502-6210L-092, C9502-5620L-039
  Title: **Expandable ATOM switch architecture (XATOM) for ATM LANs**
  Author(s): Ruixue Fan; **Suzuki, H.** ; Yamada, K.; Matuura, N.
  Author Affiliation: C&C Res. Labs., NEC Corp., Kawasaki, Japan
  Part vol.1   p.402-9 vol.1
  Publisher: IEEE, New York, NY, USA
  Publication Date: 1994 Country of Publication: USA   3 vol. xxxvii+1851 pp.
  ISBN: 0 7803 1825 0
  U.S. Copyright Clearance Center Code: 0 7803 1825 0/94/$4.00
  Conference Title: Proceedings of ICC/SUPERCOMM'94 - 1994 International Conference on Communications
  Conference Sponsor: IEEE Commun. Soc.; IEEE New Orleans Sect.; Telecommun. Ind. Assoc.; US Telephone Assoc
  Conference Date: 1-5 May 1994   Conference Location: New Orleans, LA, USA
  Language: English   Document Type: Conference Paper (PA)
  Treatment: Applications (A); New Developments (N)
  Abstract: There is growing interest in building ATM switch based "multimedia LANs" as the next generation local area networks, which overcomes performance limitations of shared media type LANs, such as **Ethernet** and FDDI. Since LAN terminals tend to transmit **packets** at the same speed as that of network links, such as at 100 Mbps, ATM LAN switches are inevitable to provide much larger buffer capacity than public network ATM switches, which are designed to accommodate lower-speed data services than the network link speed. Moreover, both low delay switching and multicast functions are required for multimedia applications. Responding to these requirements, this paper proposes a new switch architecture, referred to as "expandable ATOM switch (XATOM)", which is a kind of input and output buffer switch architecture, and can expand the buffer capacity simply by adding low cost memory chips. By combining low-speed and large capacity input-buffer memories and a backpressure control between input and output buffers, the XATOM switch can achieve high-throughput with low cell loss rate even in high-speed burst traffic environments. Since contention among multiple input buffers is eliminated in the XATOM switch, the input buffer management, both for avoiding head-of-line blocking and for supporting priority and multicast control functions, can be easily implemented. Delay and cell loss probability for the XATOM switch have been evaluated based on simulation study results. The paper also discusses some implementation specific details. (17 Refs)
  Subfile: B C
  Descriptors: asynchronous transfer mode; buffer storage; local area networks; multimedia communication
  Identifiers: ATM LAN; multimedia LAN; expandable ATOM switch architecture ; XATOM; local area networks; buffer capacity; network link speed; low delay switching; multicast functions; output buffer; input buffer; memory chips; backpressure control; high-throughput; low cell loss rate; high-speed burst traffic; input buffer management; multicast control

functions; cell loss probability; delay; simulation; 2.4 Gbit/s
   Class Codes: B6210L (Computer communications); B6210R (Multimedia communications); B6150C (Communication switching); B6230F (Integrated switching and transmission systems); C5620L (Local area networks)
   Numerical Indexing: bit rate 2.4E+09 bit/s
   Copyright 1995, IEE

   6/5/6   (Item 1 from file: 8)
DIALOG(R)File   8:Ei Compendex(R)
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06204878   E.I. No: EIP02477216111
   Title: **Compact equation of TCP throughput estimation at upgrading bottleneck link speed**
   Author: Honda, Yasuhiro; Kashio, Jiro; Sugimori, Takahiro; Kitano, Fumiaki; **Suzuki, Hidetomo**
   Corporate Source: Faculty of Engineering Mie University, Tsu, 514-8507, Japan
   Source: Electronics and Communications in Japan, Part I: Communications (English translation of Denshi Tsushin Gakkai Ronbunshi) v 86 n 1 January 2003. p 65-73
   Publication Year: 2003
   CODEN: ECJCED   ISSN: 8756-6621
   Language: English
   Document Type: JA; (Journal Article)   Treatment: T; (Theoretical); X; (Experimental)
   Journal Announcement: 0211W4
   Abstract: This paper considers a network in which one of the links is the bottleneck of communication, and the speed of that link is upgraded. A simple method of calculation is proposed for the effect of the upgrading on the throughput of the TCP communication passing through the link. As the first step, a formula for the TCP communication throughput is proposed, which is a function of the mean window size of the TCP flow control, the round-trip time, and the loss ratio of the **packet** . The waiting time in the router, which is the major factor determining the round-trip time, is approximated by the M/M/1/m queue. By combining those two expressions, the change of the throughput by upgrading the link speed is calculated. In order to verify the validity of the throughput calculation and the router model, the change of the TCP communication throughput in upgrading the speed of the bottleneck link is calculated, and the result is compared to the result of actual measurement in the experimental network composed of PPP and **Ethernet** . It is seen that the model proposed in this paper agrees well with the actual measurement although it is simple. The method is applied to the network between Mie University and SINET. The effect of the link speed upgrading on TCP throughput is examined and verified. The result obtained in this paper is expected to be useful in the network design, in estimating the link speed required in dissolving the bottleneck. 8 Refs.
   Descriptors: Network protocols; Telecommunication traffic; Telecommunication links; Congestion control (communication); Routers; Response time (computer systems); **Packet** networks; Queueing networks; Calculations; Mathematical models; Approximation theory; Local area networks; Internet
   Identifiers: Communication throughput; **Ethernet** ; Router model
   Classification Codes:
   723.2 (Data Processing); 716.1 (Information & Communication Theory); 722.3 (Data Communication, Equipment & Techniques); 722.4 (Digital Computers & Systems); 921.6 (Numerical Methods); 723.5 (Computer Applications)
   723 (Computer Software, Data Handling & Applications); 716 (Electronic

Equipment, Radar, Radio & Television); 722 (Computer Hardware); 921
(Applied Mathematics)
   72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATION
ENGINEERING); 92 (ENGINEERING MATHEMATICS)

   6/5/7   (Item 2 from file: 8)
DIALOG(R)File   8:Ei Compendex(R)
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

04665347   E.I. No: EIP97043595391
   Title: **FX1000**: a high performance single chip gigabit ethernet **NIC**
   Author: Ross, Mark; **Bechtolsheim, Andy** ; Le, My T.; O'Sullivan, Jim
   Corporate Source: Cisco Systems, Inc
   Conference Title: Proceedings of the 1997 IEEE COMPCON Conference
   Conference   Location: San   Jose,   CA,   USA   Conference   Date:
19970223-19970226
   Sponsor: IEEE
   E.I. Conference No.: 46226
   Source: Digest of Papers - COMPCON - IEEE Computer Society International
Conference 1997. IEEE, Piscataway, NJ, USA,97CB36028. p 218-223
   Publication Year: 1997
   CODEN: DCSIDU
   Language: English
   Document Type: CA; (Conference Article)   Treatment: T; (Theoretical)
   Journal Announcement: 9705W4

   Abstract: In this paper we present the design of the FX1000, a high
performance single chip Gigabit **Ethernet** NIC. With a 64 bit, 66MHz PCI
bus interface, the chip can maintain a throughput of 2Gbps between memory
and the network. 64-bit address also allows the FX1000 to address very
large system memory. In addition, it transmits and receives **packets** with
minimal assistance from the CPU. Furthermore, the FX1000 performing TCP
checksum calculation and IEEE 802.1q Virtual LAN processing in hardware.
(Author abstract)
   Descriptors: Network protocols; Microprocessor chips; User interfaces;
Computer networks; **Packet   switching** ; Channel capacity; Data storage
equipment; Local area networks
   Identifiers: **Ethernet** network interface controller; Input output bus;
Programmed input output
   Classification Codes:
   722.3 (Data Communication, Equipment & Techniques); 722.2 (Computer
Peripheral Equipment); 716.1 (Information & Communication Theory); 722.1
(Data Storage, Equipment & Techniques)
   722 (Computer Hardware); 716 (Radar, Radio & TV Electronic Equipment)
   72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS)

   6/5/8   (Item 3 from file: 8)
DIALOG(R)File   8:Ei Compendex(R)
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03945197   E.I. No: EIP94091411053
   Title: **Expandable ATOM switch architecture (XATOM) for ATM LANs**
   Author: Fan, Ruixue; **Suzuki, Hiroshi** ; Yamada, Kenji; Matsuura, Noritaka
   Corporate Source: NEC Corp, Kawasaki, Jpn
   Conference Title: Proceedings of the 1994 IEEE International Conference
on Communications
   Conference   Location: New   Orleans,   LA,   USA   Conference   Date:
19940501-19940505
   Sponsor: IEEE   Communications   Society;   IEEE   New   Orleans   Section;

Abstract: There is growing interest in building ATM switch based 'Multimedia LANs' as the next generation local area networks, which overcomes performance limitations of shared media type LANs, such as **Ethernet** and FDDI. Since LAN terminals tend to transmit **packets** at the same speed as that of network links, such as at 100Mbps, ATM LAN switches are inevitable to provide much larger buffer capacity than public network ATM switches, which are designed to accommodate lower-speed data services than the network link speed. Moreover, both low delay switching and multicast functions are required for multimedia applications. Responding to these requirements, this paper proposes a new switch architecture, referred to as 'Expandable ATOM switch (XATOM)', which is a kind of input and output buffer switch architecture, and can expand the buffer capacity simply by adding low cost memory chips. By combining low-speed and large capacity input-buffer memories and a backpressure control between input and output buffers, the XATOM switch can achieve high-throughput with low cell loss rate even in high-speed burst traffic environments. Since contention among multiple input buffers is eliminated in the XATOM switch, the input buffer management, both for avoiding Head-of-line blocking and for supporting priority and multicast control functions, can be easily implemented. Delay and cell loss probability for the XATOM switch have been evaluated based on simulation study results. The paper also discusses some implementation specific details. With this switch architecture, a high-performance and low cost switch for ATMLANs is realized. (Author abstract) 17 Refs.
Descriptors: Switches; Local area networks; Telecommunication links; Telecommunication traffic; Channel capacity; Telecommunication services; Switching functions; Switching; **Packet switching** ; Probability
Identifiers: Expandable ATOM switch architecture; Asynchronous transfer mode; Delay switching; Multicast function; Buffer capacity; Backpressure control
Classification Codes:
715.2 (Industrial Electronic Equipment); 722.3 (Data Communication, Equipment & Techniques); 716.1 (Information & Communication Theory); 721.1 (Computer Theory, Includes Formal Logic, Automata Theory, Switching Theory, Programming Theory); 922.1 (Probability Theory); 723.5 (Computer Applications)
715 (General Electronic Equipment); 722 (Computer Hardware); 716 (Radar, Radio & TV Electronic Equipment); 721 (Computer Circuits & Logic Elements); 922 (Statistical Methods); 723 (Computer Software)
71 (ELECTRONICS & COMMUNICATIONS); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

6/5/9   (Item 1 from file: 34)

11047965   Genuine Article#: 600UW   Number of References: 8
Title: Compact equation of TCP throughput estimation at upgrading
    bottleneck link speed
Author(s): Honda Y (REPRINT) ; Kashio J; Sugimori T; Kitano F; **Suzuki H**

Abstract: This paper considers a network in which one of the links is the
    bottleneck of communication, and the speed of that link is upgraded. A
    simple method of calculation is proposed for the effect of the
    upgrading on the throughput of the TCP communication passing through
    the link. As the first step, a formula for the TCP communication
    throughput is proposed, which is a function of the mean window size of
    the TCP flow control, the round-trip time, and the loss ratio of the
    packet . The waiting time in the router, which is the major factor
    determining the round-trip time, is approximated by the M/M/1/m queue.
    By combining those two expressions, the change of the throughput by
    upgrading the link speed is calculated. In order to verify the validity
    of the throughput calculation and the router model, the change of the
    TCP communication throughput in upgrading the speed of the bottleneck
    link is calculated, and the result is compared to the result of actual
    measurement in the experimental network composed of PPP and **Ethernet** .
    It is seen that the model proposed in this paper agrees well with the
    actual measurement although it is simple. The method is applied to the
    network between Mie University and SINET. The effect of the link speed
    upgrading on TCP throughput is examined and verified. The result
    obtained in this paper is expected to be useful in the network design,
    in estimating the link speed required in dissolving the bottleneck. (C)
    2002 Wiley Periodicals, Inc.
Descriptors--Author Keywords: Internet ; traffic ; TCP ; throughput
Cited References:
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    MATHIS M, 1997, V27, COMPUT COMMUN REV AC
    MCCANNE S, UCB LBNL VINT NETWOR
    PATHCHAR JV, 1997, TOOL INFER CHARACTER
    WRIGHT GR, 1994, V1, TCP IP ILLUSTRATED

 6/5/10   (Item 1 from file: 94)

ABSTRACT: This paper proposes a simple method to calculate the effect on
    TCP communication throughput through the line when the line speed is
    improved in a network of which the line is a bottleneck in the
    communication. At first, an equation for throughput calculation of TCP
    communication is proposed which is given by a function of average
    value of window size of the TCP flow control and round trip times and
    packet loss rate. The latency at a router, a main factor to determine
    round trimes time was approximated by M/M/1/m queue. The change of the
    throughput in the line speedup is calculated by simultaneous equations
    of these two. In order to confirm the validity of the throughput
    computation equation and the router model, ratio of the change of the
    throughput of the TCP communication in changing the bottleneck line
    speed was compared with the result of the measurement with an
    experimental network consisting of PPP and **Ethernet** .   The model
    proposed in this paper was found to agree well with the measured value
    in spite of simplicity. The model was applied to a network between Mie
    Univ. and SINET, and the effect on TCP throughput in the line speedup
    was presented and verified. The result obtained in this paper seems to
    be an effective method for the estimation of line speedup required to
    solve the bottleneck in network design.
DESCRIPTORS: internet; TCP-IP; throughput; flow control(information); queue
    ; traffic monitoring; communication design; parameter estimation;
    communication channel model; transmission speed
BROADER DESCRIPTORS: computer network; communication network; information
    network; network; protocol; rule; performance; control; queuing theory;
    theory; communication monitoring; monitoring; communication
    administration; management; design; system identification;
    identification; recognition; statistical estimation; estimation;
    statistical decision; decision; statistical method; communication
    system model; model; velocity; transmission characteristic;
    characteristic
CLASSIFICATION CODE(S): ND02040C; JC03000K

 6/5/11   (Item 2 from file: 94)
DIALOG(R)File   94:JICST-EPlus
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03722003   JICST ACCESSION NUMBER: 98A0830282   FILE SEGMENT: JICST-E
Compact Equation to Estimate Internet Throughput.
KASHIO JIRO (1); HONDA YASUHIRO (1); **SUZUKI HIDETOMO**   (1); KITANO FUMIAKI
    (1); SUGIMORI TAKAHIRO (2)
(1) Mie Univ., Fac. of Eng.; (2) Hewlett-Packard Japan, Ltd.
ABSTRACT: Severe decrease of the response time and the throughput due to
    increasing traffic of the internet, request network managers to find
    the bottleneck portion and estimate the effect of the grade-up of the
    communication line speed. Throughput of TCP can be approximated by the
    average window size divided by the round trip time(RTT). If **packets**
    are lost due to the congestion, extra time of the retransmission should

be added to prolong the RTT. The waiting time at the router which
contribute the RTT, is derived by the application of M/M/1/m model,
where m is the number of buffer. The vaidity of the derived equation is
tested by the experimental network where a router connects an **ethernet**
and a low speed serial line. The equation is applied to estimate to
what extent the communication line between Mie university and SINET be
up-graded. When the bottleneck is on the interface connecting SINET and
commercial internet, 2 to 3 times speed up of the line was sufficient.
However, after the bottle neck was removed, the speed up of the line at
leased 1 digit is necessary. (author abst.)
DESCRIPTORS: WAN; protocol; throughput; window system; approximation method
    ; **packet** ; queuing time; buffer system; repeater; queue; traffic
    measurement; internet; TCP-IP
BROADER DESCRIPTORS: computer network; communication network; information
    network; network; rule; performance; method; object; time; storage
    system; communication apparatus; equipment; queuing theory; theory;
    exchange measurement; communication measurement; electrical measurement
    ; measurement
CLASSIFICATION CODE(S): JC03000K

 6/5/12   (Item 1 from file: 95)
DIALOG(R)File   95:TEME-Technology & Management
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ABSTRACT:
There is growing interest in building ATM switch based 'multimedia LANs' as
the next generation local area networks, which overcomes performance
limitations of shared media type LANs, such as **Ethernet** and FDDI. Since
LAN terminals tend to transmit **packets** at the same speed as that of
network links, such as 100 Mb/s, ATM LAN switches are inevitable to provide
much larger capacity than public network ATM switches, which are designed
to accommodate lower-speed data services than the network link speed.
Moreover, both low delay switching and multicast functions are required for
multimedia applications. Responding to these requirements, this paper
proposes a new switch architecture, reffered to as 'Expandable ATOM switch'
(XATOM), which is a kind of input and output buffer switch architecture,
and can expand the buffer capacity simply by adding low cost memory chips.
By combining low-speed and large capacity input-buffer memories and a
backpressure control between input and output buffers, the XATOM switch can
achieve high throughput with low cell loss rate even in high-speed burst
traffic environments. Since contention among multiple input buffers is
eliminated in the XATOM switch, the input buffer management, both for
avoiding head-of-line blocking and for supporting priority and multicast
control functions, can be easily implemented. Delay and cell loss
probability for the XATOM switch have been evaluated based on simulation
study results. The paper also discusses some implementation specific
details. With this switch architecture, a high-performance and low cost
switch for ATM LANs is realized.

DESCRIPTORS: LIGHT COMMUNICATION; SWITCHING TECHNOLOGY; LAN--LOCAL AREA
NETWORKS; NETWORK ARCHITECTURE; BUFFER STORAGE; **PACKET SWITCHING** ;
ASYNCHRONOUS TRANSFER MODE
IDENTIFIERS: lokales Netz; Vermittlungstechnik

```
Set       Items    Description
S1      1984005    MODIF? OR EDIT? OR REVIS? OR REVAMP? OR REW
                   OR UP()(DATING OR DATE? ?) OR UPDAT? OR CHANGE
S2       992218    PACKET? OR FRAME? OR DATAGRAM? OR BLOCK()DA
S3      1745441    INSERT? OR (PUT OR SET)()(INTO OR "IN") OR
                   RJECT?
S4      5168839    HEADER OR DATA OR FILE OR DESCRIPTION? OR
S5       300091    IN()PLACE()OF OR INSTEAD OR SUBSTITUTE OR ALTERN......
S6         6191    PREAMBLE OR STATEMENT
S7            1    S1 AND S2 AND S3 AND S4 AND S5 AND S6
S8           11    S3 AND S5 AND S6
S9         4290    S1 AND S2 AND S3 AND S4
S10           5    S9 AND S6
S11          40    S2 AND S3 AND S4 AND S6
S12          50    S7 OR S8 OR S10 OR S11
S13          10    S12 AND IC=G06F?
?  show files
File 347:JAPIO Oct 1976-2003/Oct(Updated 040202)
          (c) 2004 JPO & JAPIO
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200411
          (c) 2004  Thomson Derwent
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Patents

13/5/1   (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
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03816393   **Image available**
PORTABLE TERMINAL EQUIPMENT

PUB. NO.:   04-181493 [JP 4181493 A]
PUBLISHED: June 29, 1992 (19920629)
INVENTOR(s):   YANAGISAWA TSUTOMU
APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP
               (Japan)
APPL. NO.:   02-310647 [JP 90310647]
FILED: November 16, 1990 (19901116)
INTL CLASS: [5] G07B-001/00; **G06F-015/21** ; **G06F-015/74** ; G06K-007/01
JAPIO CLASS: 29.4 (PRECISION INSTRUMENTS -- Business Machines); 45.3
               (INFORMATION PROCESSING -- Input Output Units); 45.4
               (INFORMATION PROCESSING -- Computer Applications)
JAPIO KEYWORD:R131 (INFORMATION PROCESSING -- Microcomputers &
               Microprocessers)
JOURNAL: Section: P, Section No. 1438, Vol. 16, No. 502, Pg. 38,
               October 16, 1992 (19921016)

                           ABSTRACT
PURPOSE: To adjust excess fare in a train by a prepaid card or a credit
card by executing the adjustment processing based on information obtained
by reading information stored in the card and printing the result to issue
a **statement** of account **instead** of a ticket.

CONSTITUTION: when an adjusted amount is registered and a train crew
inserts a prepaid card 1a to a prepaid card reader/writer 2s, read data
is temporarily stored in a memory 9 through a CPU 3. the adjusted amount is
subtracted from the balance in the prepaid card 1a, and the result is
written in the prepaid card 1a, and data of the date, the departure
station, the adjusted amount, or the like is sent to a receipt printer 5 to
issue a **statement** of account where this data is printed. Thus, the
prepaid card 1a or a credit card 1b can be used for adjustment of the
excess fare.

13/5/2   (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO
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01930676   **Image available**
DATA RECORDING SYSTEM

PUB. NO.:   61-144776 [JP 61144776 A]
PUBLISHED: July 02, 1986 (19860702)
INVENTOR(s):   ADACHI OSAMU
               YAMADA WASAKU
APPLICANT(s): RICOH CO LTD [000674] (A Japanese Company or Corporation), JP
               (Japan)
APPL. NO.:   59-264577 [JP 84264577]
FILED: December 17, 1984 (19841217)
INTL CLASS: [4] G11B-020/12; **G06F-003/06**
JAPIO CLASS: 42.5 (ELECTRONICS -- Equipment); 45.3 (**INFORMATION**
               PROCESSING -- Input Output Units
JOURNAL: Section: P, Section No. 518, Vol. 10, No. 344, Pg. 18,

November 20, 1986 (19861120)

ABSTRACT
PURPOSE: To detect securely the 1st **frame** synchronizing signal after a **preamble** value by arranging plural **frame** synchronizing signals consisting of patterns whose autocorrelation is not sharp in a **preamble** constituting a **data** area.

CONSTITUTION: The **preamble** PA1 is costituted by **inserting** (n) **frame** synchronizing signals FS into a bit synchronizing signal BS1 at intervals Tf of one **frame** . A formatter controller 1 generates the **preamble** PA1 by operating a bit synchronizing circuit 2 and a **frame** synchronizing signal generating circuit 3 successively (n) times at a period Tf and then operating the circuit 2 once. Then, the controller 1 operates the circuit 3 and then outputs write **data** for one **frame** from a **data** buffer 4; and this operation is repeated by as many times as the total number of **frames** of a **data** area to generate signals for one sector. Plural signals FS are arranged in the same **preamble** , so even if an error occurs to the 1st signal FS arranged right after the **preamble** , the position of the **frame** is predictable.

13/5/5   (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

013870502   **Image available**
WPI Acc No: 2001-354714/200137
XRPX Acc No: N01-257756
    Accounts system using computer network data transfer for business and customer account information, where data is extracted from client accounting software in first format to be processed in second format for printing or electronic transfer
Patent Assignee: EXPRESS PROMOTIONS AUSTRALIA PTY LTD (EXPR-N)
Inventor: GRANT J A; LANGMAID R R; REED R J
Number of Countries: 094   Number of Patents: 003
.Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200120504	A1	20010322	WO 2000AU1125	A	20000915	200137	B
AU 200076304	A	20010417	AU 200076304	A	20000915	200140	
NZ 517860	A	20030926	NZ 517860	A	20000915	200366	
			WO 2000AU1125	A	20000915		

Priority Applications (No Type Date): AU 992835 A 19990915
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200120504	A1	E	25	G06F-017/60	

    Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
    CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
    KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
    RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
    Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
    IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

| AU 200076304 | A | | | G06F-017/60 | Based on patent WO 200120504 |
| NZ 517860 | A | | | G06F-151:00 | Based on patent WO 200120504 |

Abstract (Basic): WO 200120504 A1
    NOVELTY – Account processing method and system including, receiving account data over a communications network, which has been extracted in a first predetermined format from an accounting software package of a

remote client computer system. Account data is processed and stored
according to business rules in a database system in a second
predetermined format based on client parameters which define client
business rules and variables.
DETAILED DESCRIPTION - Customer account information, such as
statement or invoice data is then generated, where the account data is
sent to a printing system for printing, sorting and **inserting** into
envelopes or **alternatively** the information is sent to the customers
by electronic transmission media, such as e-mail, fax and electronic
funds transfer (EFT) systems.
INDEPENDENT CLAIMS are also included for the following:
(1) An account system.
(2) Account processing software.
USE - For large and small business accounting and client customer
account information and invoice transfer.
ADVANTAGE - Provides an account system for receiving, processing
and returning client customer account information, statements and
invoices over a communications network thus significantly reducing the
amount of accounting department administration with regard for example
to document handling, printing, folding and placing into envelopes for
subsequent mailing.
DESCRIPTION OF DRAWING(S) - Basic account information system
production steps flow diagram.
pp; 25 DwgNo 2/8
Title Terms: ACCOUNT; SYSTEM; COMPUTER; NETWORK; DATA; TRANSFER; BUSINESS;
  CUSTOMER; ACCOUNT; INFORMATION; DATA; EXTRACT; CLIENT; ACCOUNT; SOFTWARE;
  FIRST; FORMAT; PROCESS; SECOND; FORMAT; PRINT; ELECTRONIC; TRANSFER
Derwent Class: T01; W01
International Patent Class (Main): **G06F-017/60 ; G06F-151-00**
International Patent Class (Additional): **G06F-151/00**
File Segment: EPI

 13/5/6   (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013722538   **Image available**
WPI Acc No: 2001-206768/200121
XRPX Acc No: N01-148005
   Optimization system for source programs, has modification processor to
   change deceleration variables when they do not correspond to variables
   shifted by substitution statement **in source program**
Patent Assignee: NEC CORP (NIDE)
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No   Kind   Date   Applicat No   Kind   Date   Week
JP 2001022590 A   20010126 JP 99190268   A   19990705 200121 B

Priority Applications (No Type Date): JP 99190268 A 19990705
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
JP 2001022590 A   9 G06F-009/45

Abstract (Basic): JP 2001022590 A
       NOVELTY - A deceleration **statement** having variable corresponding
    to objective variable is **inserted** initially in a source program. When
    a substitution **statement** with array shift function, shifts value of
    variables within the source program and if variables in deceleration
    statement do not correspond to shifted variable, modification

processor (16) corrects variables of deceleration **statement** , accordingly.

    DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for optimization procedure of source program having array shift function.

    USE - For optimizing source program having array shift functions such as CSHIFT, EOSHIFT in Fortran language.

    ADVANTAGE - Since variables of deceleration **statement** are changed suitably, entire array is accessed continuously and avoids need for several number of branches within source program for correcting deceleration variables.

    DESCRIPTION OF DRAWING(S) - The figure illustrates the optimization process of source program.

    Modification processor (16)

    pp; 9 DwgNo 1/6

Title Terms: SYSTEM; SOURCE; PROGRAM; MODIFIED; PROCESSOR; CHANGE;
  DECELERATE; VARIABLE; CORRESPOND; VARIABLE; SHIFT; **SUBSTITUTE** ;
  STATEMENT ; SOURCE; PROGRAM

Derwent Class: T01

International Patent Class (Main): **G06F-009/45**

File Segment: EPI

13/5/7   **(Item 5 from file: 350)**

DIALOG(R)File 350:Derwent WPIX

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013673736   **Image available**

WPI Acc No: 2001-157948/200116

Related WPI Acc No: 2000-671906

XRPX Acc No: N01-114964

  Job control language control block parameter modification **system for
  main fame computers,** revises **parameters of JCL control block having
  request for** data **storage space allocation, based on historical** data

Patent Assignee: SIDWELL L P (SIDW-I)

Inventor: SIDWELL L P

Number of Countries: 001   Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6131190	A	20001010	US 97993644	A	19971218	200116	B
			US 99305727	A	19990505		

Priority Applications (No Type Date): US 99305727 A 19990505; US 97993644 A
  19971218

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6131190	A		13	G06F-005/00	CIP of application US 97993644

Abstract (Basic): US 6131190 A

    NOVELTY - A **data** collection unit collects historical **data** , based on actual requirement in **data** storage space of each **data** set. A parsing unit parses job control language (JCL) control block with reference to **data** sets and requested **data** storage space allocation. The parameters in JCL control block is **revised** , based on the historical **data** .

    USE - For **modifying** JCL parameter to optimize **data** storage allocation based on historical space requirements for each **data** **set** **in** main **frame** computer used in business environment.

    ADVANTAGE - Process and **revises** the JCL control blocks **instead** of generating **revised** JCL **statement** . Provides a report for the user summarizing the historical actual usage requirements for each **data** set and provides statistics on overall efficiency of space allocation.

DESCRIPTION OF DRAWING(S) - The figure shows the schematic block
diagram of JCL parameters **modification** system.
       pp; 13 DwgNo 1, 6/7
Title Terms: JOB; CONTROL; LANGUAGE; CONTROL; BLOCK; PARAMETER; **MODIFIED** ;
   SYSTEM; MAIN; COMPUTER; **REVISED** ; PARAMETER; CONTROL; BLOCK; REQUEST;
   DATA ; STORAGE; SPACE; ALLOCATE; BASED; HISTORY; **DATA**
Derwent Class: T01
International Patent Class (Main): **G06F-005/00**
File Segment: EPI

 13/5/8   (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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011470356   **Image available**
WPI Acc No: 1997-448263/199741
XRPX Acc No: N97-373625
   **Computer-interpreted grammatical rules for generating queries in grammar
   for testing ODBC database engine driver - comprises static elements for
   generating constant parts of queries from rules and variable elements,
   e.g. query and query list elements, for generating driver parts of
   queries, with variable elements replaced by particular engine driver val**
Patent Assignee: MICROSOFT CORP (MICR-N)
Inventor: FAST R W
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5664173	A	19970902	US 95562916	A	19951127	199741	B

Priority Applications (No Type Date): US 95562916 A 19951127
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5664173	A		26	G06F-017/30	

Abstract (Basic): US 5664173 A
       The grammar, parsing method, and associated apparatus for
   automatically generating test commands to test an SQL database engine
   interface while reducing storage requirements and improving access time
   for such test commands as compared with prior test tools. The test
   tools and methods include a grammar for concise syntactic
   representation of a meta-query (also referred to as meta-language
   statement , query pattern, or query template). The meta-query defines
   an **statement** similar to the SQL language but includes query elements
   and query list elements used to generate a plurality of SQL test
   commands to be applied to the SQL database engine under test.
       Test commands are generated from the meta-query to reduce storage
   requirements of prior test methods. Query elements are variable space
   holders in the meta-query and are replaced by a value appropriate to
   the SQL database engine under test when the meta-query is used to
   generate test commands. Query list elements define a list of values to
   be **inserted** **in** **place** **of** the query list element when generating
   the test commands from the meta-query.
       USE/ADVANTAGE - E.g. for testing database engine drivers in Open
   DataBase Connection environment by automatic generation of test
   commands from meta-query pattern. Meta-language permits test commands
   to be expressed in concise, compact meta-language syntax. Simple, fast
   storage and modification of meta-queries.
       Dwg.2/7
Title Terms: COMPUTER; INTERPRETATION; RULE; GENERATE; QUERY; GRAMMAR; TEST

; DATABASE; ENGINE; DRIVE; COMPRISE; STATIC; ELEMENT; GENERATE; CONSTANT;
  PART; QUERY; RULE; VARIABLE; ELEMENT; QUERY; QUERY; LIST; ELEMENT;
  GENERATE; DRIVE; PART; QUERY; VARIABLE; ELEMENT; REPLACE; ENGINE; DRIVE
Derwent Class: T01
International Patent Class (Main): **G06F-017/30**
File Segment: EPI

 13/5/9   (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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010362088   **Image available**
WPI Acc No: 1995-263402/199534
Related WPI Acc No: 1997-118480
XRPX Acc No: N95-202484
   Data **compression system** - inserts **non-repetitive** data into data
   -stream and removes repeated data , **adds coded repeated pattern sample,
   identification** preamble , **decoding instruction, period count, mask and
   repeat count signals**
Patent Assignee: MOLL E W (MOLL-I)
Inventor: MOLL E W
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5434568	A	19950718	US 85690478	A	19850110	199534	B
			US 90531631	A	19900601		
			US 93127013	A	19930924		

Priority Applications (No Type Date): US 85690478 A 19850110; US 90531631 A
   19900601; US 93127013 A 19930924
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5434568	A		23	G06F-007/20	Cont of application US 85690478
					Cont of application US 90531631

Abstract (Basic): US 5434568 A
      Repetitive **data** and non-repetitive **data** , including periods of
   no **information** , are encoded prior to transmission or storage in
   digital form. Repetition, partial repetition, and near repetition is
   encoded in a form indicating the occurrence of repetition, its
   characteristics and its duration. The existence and size of repeated
   patterns in the **data** is dynamically determined.
      When repetition is detected, non-repetitive **data** is **inserted**
   into the **data** -stream and repeated **data** is removed from the **data**
   -stream. To this non-repeated **data** in the **data** -stream are added a
   coded repeated pattern sample, an identification **preamble** signal, an
   instruction signal for decoding purposes, a period count signal, a mask
   signal, and a repeat count signal. All necessary **data** elements are
   combined and assembled to produce compressed **data** . A receiver
   utilizes these coded and uncoded **data** elements to regenerate complete
   original **data** .
      USE/ADVANTAGE - For recorded message and announcement systems,
   dictation machines, speech synthesisers, speech recognition, speech
   comparison, video storage, **packet** storage, tone interval timing, tone
   synthesisers, ASCII **data** storage, in digital telephone carrier
   systems, statistical multiplex systems carrying voice or **data** ,
   packet transmission, video and **data** transmission, TASI, DSI.
   Minimises memory space required for storage or time required to
   transmission. Suppresses transmission of repetitive signals when number

of such signals exceeds threshold.
  Dwg.7/9
Title Terms: **DATA** ; COMPRESS; SYSTEM; **INSERT** ; NON; REPEAT; **DATA** ; 1DATA
  ; STREAM; REMOVE; REPEAT; **DATA** ; ADD; CODE; REPEAT; PATTERN; SAMPLE;
  IDENTIFY; **PREAMBLE** ; DECODE; INSTRUCTION; PERIOD; COUNT; MASK; REPEAT;
  COUNT; SIGNAL
Derwent Class: T01; U21; W01
International Patent Class (Main): **G06F-007/20**
International Patent Class (Additional): **G06F-005/00**
File Segment: EPI

 13/5/10   (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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007303744
WPI Acc No: 1987-300751/198743
XRPX Acc No: N87-224675
  **Computer system with source code re-creation capability - appends
  compiled code** information **necessary to re-create source which generated
  compiled code**
Patent Assignee: TEXAS INSTR INC (TEXI)
Inventor: SRIVASTAVA A
Number of Countries: 004 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 243110	A	19871028	EP 87303392	A	19870416	198743	B
US 5249275	A	19930928	US 86854221	A	19860421	199340	
			US 88191857	A	19880504		
			US 89316556	A	19890227		
			US 91696265	A	19910430		

Priority Applications (No Type Date): US 86854221 A 19860421; US 88191857 A
  19880504; US 89316556 A 19890227; US 91696265 A 19910430
Cited Patents: 3.Jnl.ref; A3...9122; No-SR.Pub
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 243110	A	E	19		

    Designated States (Regional): DE FR GB

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5249275	A		8	G06F-009/45	Cont of application US 86854221
					Cont of application US 88191857
					Cont of application US 89316556

Abstract (Basic): EP 243110 A
    The method involves translating a source code **statement** into an
  object code block, appending to the block **information** sufficient to
  recreate the source code **statement** , and linking the object code block
  and appended **information** into a list with object code and appended
  information for any related source code statements. The above steps
  are repeated for each of the sources code statements.
    The linking step pref. includes creating a procedure execution
  frame for each procedure defined by the source code statements, each
  frame having pointers, each of which points to a list of object code
  blocks having a common property, determing which **frame** cprresp. to
  the procedure in which the source code **statement** belongs, selecting a
  list of blocks pointed to by a pointer in the determined **frame** which
  have a common property with the source code statements, and **inserting**
  the block into the selected list.
    ADVANTAGE - In compiling PROLOG programs, allows program statements

which use original source code to be compiled.
        Dwg.0/5
Title Terms: COMPUTER; SYSTEM; SOURCE; CODE; CREATION; CAPABLE; COMPILE;
  CODE; **INFORMATION** ; NECESSARY; SOURCE; GENERATE; COMPILE; CODE
Derwent Class: T01
International Patent Class (Main): **G06F-009/45**
International Patent Class (Additional): **G06F-009/44**
File Segment: EPI

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S2      317896    PACKET? OR FRAME? OR DATAGRAM? OR BLOCK()D/
S3      710674    INSERT? OR (PUT OR SET)()(INTO OR "IN") OR
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S5      854266    IN()PLACE()OF OR INSTEAD OR SUBSTITUTE OR ALTERNATIVE?
S6       83583    PREAMBLE OR STATEMENT
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S9          74    S8 (S) S2
S10         74    S7 OR S9
S11         27    S10 AND IC=G06F?
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File 349:PCT FULLTEXT 1979-2002/UB=20040212,UT=20040205
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None of these met the requirements

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S1         30787    MODIF? OR EDIT? OR REVIS? OR REVAMP? OR REWORK? OR ALTER? -
                      OR UP()(DATING OR DATE? ?) OR UPDAT? OR CHANGE?
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                      RJECT?
S4         59204    HEADER OR DATA OR FILE OR DESCRIPTION? OR INFORMATION
S5          6221    IN()PLACE()OF OR INSTEAD OR SUBSTITUTE OR ALTERNATIVE?
S6           493    PREAMBLE OR STATEMENT
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S8             2    S3 AND S5 AND S6
S9            27    S1 AND S2 AND S3 AND S4
S10            0    S9 AND S6
S11            0    S2 AND S3 AND S4 AND S6
S12           22    S9 NOT PY>2000
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S14            3    S13 AND (STRIP? OR REPLACE? OR EMBED? OR ENCAPSULATE?)
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File 256:SoftBase:Reviews,Companies&Prods. 82-2004/Jan
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DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.
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00117900   DOCUMENT TYPE: Review

PRODUCT NAMES: Microsoft Money (336734); Quicken (701823)

TITLE: Paperless Bills
AUTHOR: Nash, Sharon
SOURCE: PC Magazine,   v18 n13 p28(1) Jul 1999
ISSN: 0888-8509
HOMEPAGE: http://www.pcmag.com

RECORD TYPE: Review
REVIEW TYPE: Product Analysis
GRADE: Product Analysis, No Rating

Microsoft Money, Intuit's Quicken, and UTM Systems' UTM Machine are
highlighted in a discussion of the future potential for paperless,
Web-enabled, online bill paying. CheckFree, a bill consolidator, has a few
years' momentum in the market and may dominate. However, Microsoft backs
TransPoint, and the Sun Microsystems/Netscape Communications alliance also
has an online bill paying strategy. Online bill payment has been possible
with Microsoft Money and Quicken online options, and through various banks.
Although the user does not have to write and mail checks, paper checks are
still generated and mailed to billers. However, consolidators such as
CheckFree and TransPoint now provide bill aggregation and World Wide Web
presentment technology to billers. When a customer visits a biller's or
consolidator's Web site directly, bank **information** is entered and
e-checks or direct debits are authorized. CheckFree and Yahoo! are rumored
to be cooperating to make bill presentment and paying even easier by
visiting a single portal or bank site and viewing a consolidator-provided
summary of all bills. Consumers can then visit a biller's Web site through
a **frame** in the portal. The UTM Machine, a floppy disk **reworked** to be a
magnetic **stripe** reader with a credit card slot, allows user to make Web
purchases by sliding a credit/debit/ATM card into the disk and **inserting**
it in the PC floppy disk drive. An ATM-type screen shown on the screen
receives a PIN number, and eliminates the need to reenter payment **data**
each time a purchase is made.

COMPANY NAME: Microsoft Corp (112127); Intuit Inc (447013)
DESCRIPTORS: Check Processing; E-Billing; E-Payment; IBM PC & Compatibles;
    Personal Finance
REVISION DATE: 19991030

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.
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00103676   DOCUMENT TYPE: Review

**PRODUCT NAMES: Macromedia HomeSite 3.0 Beta (655571); WebEdit
Professional 3.0 Beta (623407)**

TITLE: HomeSite, WebEdit ease tag chores
AUTHOR: Dugan, Sean
SOURCE: InfoWorld,   v19 n46 p110C(2) Nov 17, 1997
ISSN: 0199-6649

RECORD TYPE: Review
REVIEW TYPE: Review
GRADE: B

Allaire's HomeSite 3.0 beta and Luckman Interactive's WebEdit Professional
3.0 beta are Windows Hypertext Markup Language (HTML) **editors** reviewed
and compared. The two products set themselves apart by providing wizards
and **editing** dialog boxes that accelerate coding, and by providing
features such as global search and **replace** , HTML validation, and link
verification. HomeSite 3.0 still has a basic HTML tagging architecture,
with no WYSIWYG view, but adds automation to the coding process. WebEdit,
instead of emphasizing automated tag **insertion** , uses many wizards and
editing dialog boxes, so that HTML code is untouched. Macintosh developers
will pick up on similarities to BBEdit, because both products have many
productive features first provided in BBEdit. Both toolsets allow users to
quickly build home pages, tables, or **framesets** with multiple wizards.
They create code that needs tuning, instead of highly refined HTML. For
instance, **frame** wizards allow users to create a good **frameset** , but
frame borders have to be tweaked. Users who do not understand HTML tags
and their many attributes may be somewhat confused by wizards, but help
files can help. HomeSite 3.0 provides a Good Tag Tips feature and a
convenient clipping **file** for code reuse. It also is highly customizable.
WebEdit Pro 3.0 supports HTML 4.0, Java, ActiveX, and JavaScript.

COMPANY NAME: Macromedia Inc (423106); Luckman Interactive Inc (620858)
SPECIAL FEATURE: Charts Screen Layouts
DESCRIPTORS: Authoring Systems; Electronic Publishing; HTML; IBM PC &
    Compatibles; Internet Utilities; Text **Editors** ; Web Site Design;
    Windows
REVISION DATE: 20020923

 14/5/3
DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.
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00083402   DOCUMENT TYPE: Review

PRODUCT NAMES: Microsoft Visual C++ (437875)

TITLE: Visual C++ boosts class view, debugging
AUTHOR: DelRossi, Robert A
SOURCE: InfoWorld,   v17 n40 p95(1) Oct 2, 1995
ISSN: 0199-6649
HOMEPAGE: http://www.infoworld.com

RECORD TYPE: Review
REVIEW TYPE: Review
GRADE: A

Microsoft's Visual C++ gets a thumbs up for its intuitive, class-oriented
project **framework** , better debugging, a component gallery for **insertion**
of Object Linking and **Embedding** (OLE) custom controls and reusable C++
classes. The component gallery is a repository for stored OCXs and reusable
classes, and several OCX and C++ components ship with Visual C++ 4.0. When
the developer moves the mouse pointer over a variable, a DataTip with its
value is displayed. A WizardBar on the **editing** window provides access to
code in a class' event. Pop-up menus ease navigation to references and

definitions; they also add to classes. A standout feature is tabbed project management which shows a class-based view of work, reducing **file** management tasks; the class view displays member functions and **data** members.

PRICE: $499

COMPANY NAME: Microsoft Corp (112127)
SPECIAL FEATURE: Screen Layouts Charts
DESCRIPTORS: C++; C++ Compilers; IBM PC & Compatibles; OOP (Object
    Oriented Programming); Programming Languages
REVISION DATE: 20020228

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Set      Items      Description
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S2      673360     PACKET? OR FRAME? OR DATAGRAM? OR BLOCK()DATA
S3      728423     INSERT? OR (PUT OR SET)()(INTO OR "IN") OR INJECT? OR INTE-
                   RJECT? OR STRIP OR REPLACE OR EMBED OR ENCAPSULATE
S4      5496260    HEADER OR DATA OR FILE OR DESCRIPTION? OR INFORMATION
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S6      38692      PREAMBLE OR STATEMENT
S7      1          S1 AND S2 AND S3 AND S4 AND S5 AND S6
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S14     36         S13 NOT PD>20000921
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File   8:Ei Compendex(R) 1970-2004/Feb W2
         (c) 2004 Elsevier Eng.  Info. Inc.
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File   2:INSPEC 1969-2004/Feb W2
         (c) 2004 Institution of Electrical Engineers
File 233:Internet & Personal Comp. Abs. 1981-2003/Sep
         (c) 2003 EBSCO Pub.
File  94:JICST-EPlus 1985-2004/Feb W2
         (c)2004 Japan Science and Tech Corp(JST)
File  99:Wilson Appl. Sci & Tech Abs 1983-2004/Jan
         (c) 2004 The HW Wilson Co.
File  95:TEME-Technology & Management 1989-2004/Feb W1
         (c) 2004 FIZ TECHNIK
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
         (c) 2002 The Gale Group
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computation. Several approaches to resolving the difficulty are considered, and in particular it is suggested to replace some axioms of the form P implies Q by P implies eventually(Q), where P and Q are control predicates, thereby separating control states previously identified. (Author abstract) 17 Refs.
    Descriptors: COMPUTER PROGRAMMING LANGUAGES; COMPUTER SYSTEMS, DIGITAL--Parallel Processing; COMPUTER METATHEORY--Programming Theory; COMPUTERS, DIGITAL-- **Data** Communication Systems; COMPUTER OPERATING SYSTEMS--Storage Allocation; COMPUTER PROGRAMMING--Structured Programming
    Identifiers: AXIOMATIC SEMANTICS; CONCURRENT PROGRAMMING; CONTROL LOCATIONS; CONTROL PREDICATES; DISTRIBUTED PROGRAMMING
    Classification Codes:
    723 (Computer Software); 722 (Computer Hardware)
    72 (COMPUTERS & DATA PROCESSING)

   15/5/8   **(Item 8 from file: 8)**
DIALOG(R)File   8:Ei Compendex(R)
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02247487   E.I. Monthly No: EIM8705-031990
    Title: FEEDFORWARD TRANSPARENT TONE-IN BAND (TTIB) FOR RAPID SYNCHRONISATION IN DIGITAL COMMUNICATIONS.
    Author: Bateman, A.; McGeehan, J. P.
    Corporate Source: Univ of Bristol, Engl
    Conference Title: Conference on Communications - An Industry on the Move.
    Conference Location: Birmingham, Engl   Conference Date: 19860513
    Sponsor: IEE, Electronics Div, London, Engl; British Computer Soc, London, Engl; IEEE, United Kingdom & Republic of Ireland Section; Inst of Mathematics & Its Applications, Southend-on-Sea, Engl; Inst of Physics, London, Engl; IERE, London, Engl
    E.I. Conference No.: 09250
    Source: IEE Conference Publication n 262. Publ by IEE, London, Engl p 9-12
    Publication Year: 1986
    CODEN: IECPB4   ISBN: 0-85296329-7
    Language: English
    Document Type: PA; (Conference Paper)
    Journal Announcement: 8705
    Abstract: The operation and application of the transparent-tone-in-band technique have been described with particular reference to the use of feedforward control mechanisms for ensuring coherent band recombination. The merits of a feedforward approach as distinct from the conventional feedback system are fast, accurate recombining of the subbands, no constraint on filtering in the control path, with consequent improved noise rejection properties of the system and the capability of delay matching to achieve an 'effective instantaneous band locking' capability. This latter property reduces or eliminates the need for a **preamble** prior to **data** transmission, particularly when the TTIB technique is also utilized to derive simultaneous modem timing **information** such as carrier, clock and **frame** synchronisation. 5 refs.
    Descriptors: *DIGITAL COMMUNICATION SYSTEMS--*Control; RADIO COMMUNICATION
    Identifiers: TRANSPARENT TONE-IN BAND; BASEBAND SIGNAL; RUGGED MODULATION ; DPSK; DIGITAL TRANSMISSION; REFERENCE **INSERTION**
    Classification Codes:
    716 (Radar, Radio & TV Electronic Equipment); 717 (Electro-Optical Communications); 718 (Telephone & Line Communications)
    71 (ELECTRONICS & COMMUNICATIONS)

the modals in terms of universal or existensial quantification over
contextually-determined·sets of possible worlds, epistemically accessible
worlds in the case of the epistemics, the command worlds of some authority
in the case of the deontics, must and may, normative worlds in the case of
should, future worlds in the case of may and will, and worlds compatible
with the actual world in the case of can. The epistemic modals are then
shown to differ systematically from the non-epistemic modals in syntactic
behavior. Epistemic modals cannot appear in sentences with empty VPs or in
questions. Within the **framework** of Government and Binding Theory the
epistemic modals are shown to be truth-conditional operators which move to
COMP at LF to bind propositional variables, thus accounting for the
disallowed structures. The semantic effect of this LF position is to weaken
or qualify the assertion, resulting in quasi-assertion. Certain adverbs
which can take sentential scope are shown to be operators of the same type.
Parenthetical expressions have a similar semantic function and similar
syntactic position. They contain verbs which are semantically weak (low in
affect, **information** , and implication). They are **inserted** in sentence
structure but do not select or **embed** complements. (Copies available
exclusively from Micrographics Department, Doheny Library, USC, Los
Angeles, CA 90089-0182.)

15/5/23   (Item 1 from file: 2)
DIALOG(R)File   2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

5498019   INSPEC Abstract Number: B9703-6210L-146, C9703-5620L-050
 Title: Reservation CDMA for distributed wireless LAN
   Author(s): Sung-Won Lee; Dong-Ho Cho
   Journal: Journal of KISS(A) (Computer Systems and Theory)   vol.23,
no.12   p.1211-24
   Publisher: Korea Inf. Sci. Soc,
   Publication Date: Dec. 1996 Country of Publication: South Korea
   CODEN: CKNOF2 ISSN: 1226-2315
   SICI: 1226-2315(199612)23:12L.1211:RCDW;1-W
   Material Identity Number: E345-97001
   Language: Korean   Document Type: Journal Paper (JP)
   Treatment: Practical (P)
   Abstract: Recent technology innovations have increased the interest of
end-user on wireless LAN (Local Area Network). However, conventional access
protocols have some problems such as the degradation of channel
utilization, necessity of control station and code reuse. Therefore, we
propose new multiple access schemes, `Distributed Reservation CDMA with
Priority (DR CDMA P)' and `Distributed Reservation CDMA without Priority
(DR CDMA NP)' that can solve those problems in distributed CDMA wireless
LAN environment. Simulation results show reliable performance improvement
by new proposed protocol in wireless LAN environment that has large
bandwidth and many nodes. This performance improvement is due to the
variable length transmission property, minimum guard time and **preamble** ,
and optimal channel utilization of reservation CDMA. Also, DR CDMA P can
transmit **data** effectively when offered load increases over 1 due to the
effective control mechanism, although reservation TDMA and DR CDMA NP
cannot transmit **data** due to an extreme delay in the heavy load condition.
In the view of management, **insertion** of new node and extension problems
can be easily solved in proposed reservation CDMA protocols for its
variable length property which can **encapsulate** conventional LAN **frame** .
Also, new protocol could provide high degree of security readily because of
spread spectrum property. Especially, inter-networking with conventional
protocol, such as IEEE 8023 Ethernet, is simple without additional overhead
for variable length property. (9 Refs)

Subfile: B C
Descriptors: access protocols; code division multiple access; digital
simulation; internetworking; time division multiple access; wireless LAN
Identifiers: reservation CDMA; distributed wireless LAN; access protocols
; channel utilization; code reuse; DR CDMA P; DR CDMA NP; simulation
results; variable length transmission property; minimum guard time; optimal
channel utilization; internetworking; IEEE 8023 Ethernet; variable length
property
Class Codes: B6210L (Computer communications); B6150M (Protocols); B6150E
(Multiple access communication); C5620L (Local area networks); C5640 (
Protocols); C6185 (Simulation techniques)
Copyright 1997, IEE

15/5/24   (Item 2 from file: 2)

4707219   INSPEC Abstract Number: B9408-1130B-053, C9408-5210B-027
 Title: **Structural and behavioral synthesis for testability techniques**
Author(s): Chung-Hsing Chen; Karnik, T.; Saab, D.G.
Author Affiliation: Coordinated Sci. Lab., Illinois Univ., Urbana, IL,
USA
Abstract: In this paper, a behavioral synthesis for testability system is
presented. In this system, a testability modifier is connected to an
existing behavioral level synthesis program, which accepts a circuit's
behavioral **description** in C or VHDL as input. The outline of the system
is as follows: (1) a testability analyzer is first applied to identify the
hard-to-test areas in the circuit from the behavioral **description** ; (2) a
selection process is then applied to select test points or partial scan
flip-flops. Selection is based on behavioral **information** rather than
low-level structural **description** . This allows test point **insertion** or
partial scan usage on circuits described as an interconnection of high
level modules; (3) test **statement insertion** (TSI), an **alternative** to
test point **insertion** and partial scan, is used to modify the circuit
based on the selected test points. The major advantage of using TSI is a
low pin count and test application time as compared to test point
 insertion and partial scan. In addition, TSI can be applied at the early
design phase. This approach was implemented in a computer program, and
applied to several sample circuits generated by a synthesis tool. The
results are also presented. (24 Refs)
Subfile: B C
Descriptors: circuit CAD; design for testability; logic CAD; logic
circuits
Identifiers: behavioral synthesis; circuit behavioral **description** ;
testability analyzer; selection process; partial scan flip-flops; test
statement insertion ; test point **insertion** ; computer program; CAD; DFT
Class Codes: B1130B (Computer-aided circuit analysis and design); B1265
(Digital electronics); C5210B (Computer-aided logic design); C7410D (
Electronic engineering)

15/5/25   (Item 3 from file: 2)

04298473   INSPEC Abstract Number: C9301-6110B-066
 Title: The rudiments of algorithm refinement
  Author(s): Woodcock, J.C.P.
  Author Affiliation: Comput. Lab., Oxford Univ., UK
  Journal: Computer Journal   vol.35, no.5   p.441-50
  Publication Date: Oct. 1992 Country of Publication: UK
  CODEN: CMPJA6 ISSN: 0010-4620
  U.S. Copyright Clearance Center Code: 0010-4620/92/$5.00+.00
  Language: English   Document Type: Journal Paper (JP)
  Treatment: Practical (P)
  Abstract: A **description** is given of the rudiments of algorithm
refinement: the business of taking a specification and producing a code
that correctly implements it. The author starts with a general discussion
of the concepts, and then turns to a particular calculus for algorithm
refinement. A definition is arrived at by considering the circumstances
under which one program may be substituted for another without a user being
able to notice the difference. From this definition, the usual proof rules
for refinement are derived: that of weakening the precondition and
strengthening the postcondition. The author shows how specifications and
programs may be **set** in the same semantic **framework** , so that proof
rules may be derived for refinement steps using the various program
combinators. However, by writing the specifications in a particular way,
the burden of proof may be dramatically reduced. For this purpose, the
author arrives at the specification **statement** and also gives the
refinement calculus; some basic laws for manipulating specification
statements and developing code from them. (18 Refs)
  Subfile: C
  Descriptors: formal specification; theorem proving
  Identifiers: algorithm refinement; calculus; proof rules; precondition;
postcondition; specifications; semantic **framework** ; refinement steps;
program combinators; refinement calculus
  Class Codes: C6110B (Software engineering techniques); C4210 (Formal
logic); C4240 (Programming and algorithm theory)

 15/5/29   (Item 7 from file: 2)

00785874   INSPEC Abstract Number: B75025784, C75017271
 Title: A pattern-recognition system for monitoring video and audio signals
  Author(s): Auerbach, G.
  Author Affiliation: Video Image Analysis Corp., New York, NY, USA
  Journal: Journal of the Society of Motion Picture and Television
Engineers   vol.84, no.3   p.162-3
  Publication Date: March 1975 Country of Publication: USA
  CODEN: JSMTA4 ISSN: 0361-4573
  Conference Title: Symposium on Television Broadcast Monitoring
  Conference Date: 14 Nov. 1974   Conference Location: Toronto, Ont.,
Canada
  Language: English   Document Type: Conference Paper (PA); Journal Paper
(JP)
  Treatment: General, Review (G)
  Abstract: A system has been designed for automatic monitoring of
broadcast television commercial materials. It employs the concept of
electronic pattern recognition of video and audio signals. No codes need be
 inserted into the program or commercial material. **Instead** , a highly

discrete digital code, or **data** set, is created by processing the commercial's video and audio signals through proprietary hardware. A total of eight **frames** is sampled from the commercial for encoding and storage in a commercial code library. Each television broadcast market has an unmanned VIAC monitor system which looks at all broadcast television material in the market area. As each off-the-air video and audio **frame** is received and processed this 'live' **data** set is compared to the commercial **data** sets in memory for 'goodness of fit'. The output to the digital tape recorder includes commercial identification, channel time, quality **statement** and an unusual-occurrence **statement** , if applicable. (0 Refs)
   Subfile: B C
   Descriptors: monitoring; pattern recognition; television broadcasting
   Identifiers: monitoring video and audio signals; automatic monitoring; broadcast television commercial materials; electronic pattern recognition
   Class Codes: B6420 (Radio and television broadcasting); C5530 (Pattern recognition equipment); C7410D (Electronic engineering)

15/5/31   (Item 1 from file: 94)
DIALOG(R)File   94:JICST-EPlus
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03488526   JICST ACCESSION NUMBER: 97A0833386   FILE SEGMENT: JICST-E
Complexity and algorithm of broadcast scheduling problem on radio network.
SOMEYA KATSUHISA (1); FUKURA YOSHIAKI (1); MATSUNO HIROSHI (1)
(1) Yamaguchi Univ., Fac. of Sci.
Joho Shori Gakkai Wakushoppu Ronbunshu, 1997, VOL.97,NO.2, PAGE.203-208,
    FIG.11, REF.2
JOURNAL NUMBER: L1697AAO
UNIVERSAL DECIMAL CLASSIFICATION: 621.395.33/.38
LANGUAGE: Japanese   COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Conference Proceeding
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: This paper describes a broadcast planning problem in a radio
    network where the topology varys with the time. Ephremides and Truong
    formulated the problem on the relationship between topology variation
    and the number of the broadcast station, and proved this formulation to
    be NP perfect. This paper points out an error in this proof. This paper
    presents a refuting example against the **statement** in the proof in
    their paper that the maximum independent **set** **in** graph G is the
    maximum independent set also in expanded graph Ga, and presents an
    another simpler proof. In addition, this paper improves the dispersive
    algorithm in their paper so as to obtain the same solution in shorter
    time.
DESCRIPTORS: mobile communication; **packet** switching; computer network;
    simultaneous transmission; scheduling; NP complete problem;
    proof(evidence); topology; priority ranking; communication design
BROADER DESCRIPTORS: telecommunication; store-and-forward switching;
    communication exchanging; exchange; switching; communication network;
    information network; network; communication system; method; problem;
    mathematics; order(sequence); mathematical relation; design
CLASSIFICATION CODE(S): ND11020E

```
Set     Items     Description
S1     7510524   MODIF? OR EDIT? OR REVIS? OR REVAMP? OR REWORK? OR ALTER? -
                  OR UP()(DATING OR DATE? ?) OR UPDAT? OR CHANGE?
S2      905506   PACKET? OR FRAME? OR DATAGRAM? OR BLOCK()DATA
S3     1415850   INSERT? OR (PUT OR SET)()(INTO OR "IN") OR INJECT? OR INTE-
                  RJECT? OR STRIP OR REPLACE OR EMBED OR ENCAPSULATE
S4    11408329   HEADER OR DATA OR FILE OR DESCRIPTION? OR INFORMATION
S5     1959022   IN()PLACE()OF OR INSTEAD OR SUBSTITUTE OR ALTERNATIVE?
S6     1149361   PREAMBLE OR STATEMENT
S7          54   S1 (S) S2 (S) S3 (S) S4 (S) S5 (S) S6
S8          38   S7 NOT PY>2000
S9          38   S8 NOT PY>20000921
S10         34   RD (unique items)
S11        231   S3 (5N) S4 (5N) S6
S12          3   S11 (5N) S5
S13     244795   ETHERNET OR FDDI
S14          0   S13 (S) S11
S15         20   S13 (S) S3 (S) S4 (S) S6
S16         15   S15 NOT PY>2000
S17         13   S16 NOT PD>20000921
?  show files
File  15:ABI/Inform(R) 1971-2004/Feb 17
          (c) 2004 ProQuest Info&Learning
File 810:Business Wire 1986-1999/Feb 28
          (c) 1999 Business Wire
File 647:CMP  Computer Fulltext 1988-2004/Feb W2
          (c) 2004 CMP Media, LLC
File 275:Gale Group Computer DB(TM) 1983-2004/Feb 17
          (c) 2004 The Gale Group
File 674:Computer News Fulltext 1989-2004/Feb W2
          (c) 2004 IDG Communications
File 696:DIALOG Telecom. Newsletters 1995-2004/Feb 17
          (c) 2004 The Dialog Corp.
File 624:McGraw-Hill Publications 1985-2004/Feb 17
          (c) 2004 McGraw-Hill Co. Inc
File 636:Gale Group Newsletter DB(TM) 1987-2004/Feb 17
          (c) 2004 The Gale Group
File 813:PR Newswire 1987-1999/Apr 30
          (c) 1999 PR Newswire Association Inc
File 613:PR Newswire 1999-2004/Feb 18
          (c) 2004 PR Newswire Association Inc
File  16:Gale Group PROMT(R) 1990-2004/Feb 17
          (c) 2004 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
          (c) 1999 The Gale Group
File 553:Wilson Bus. Abs. FullText 1982-2004/Jan
          (c) 2004 The HW Wilson Co
```

17/5,K/3   (Item 2 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2004 The Gale Group. All rts. reserv.

01456795   SUPPLIER NUMBER: 11441287   (USE FORMAT 7 OR 9 FOR FULL TEXT)
In the Ethernet frame. (the physical level) (part one of three
   articles)(Connections)
Chadwick, Vince
DEC User, p51(1)
Sept, 1991
ISSN: 0263-6530   LANGUAGE: ENGLISH   RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 815   LINE COUNT: 00061

ABSTRACT: Multiple access and collision detect principles developed for
the Aloha network at the University of Hawaii developed into CSMA\CD
(Carrier Sense, Multiple Access with Collision Detection), which was
incorporated into the Ethernet LAN being developed by Xerox, DEC and Intel.
CSMA\CD describes how a node works in an Ethernet LAN. All nodes have equal
status and can transmit at any time. Nodes listen to the line continuously.
They defer their own transmission if they detect activity, and then the
transmission of a packet of data begins. The node compares what it is
sending with what it hears. Transmission of the entire frame takes place if
the two are the same. If there is a difference the node assumes there has
been a collision with a transmission from another node. Transmission stops,
and a 32-bit jam signal is installed to ensure all the other nodes know of
the collision. The frame is retransmitted after a specified period of time,
determined by its backoff algorithm. Manchester encoding and the format of
an Ethernet frame are also discussed.
CAPTIONS: Frame format. (chart); Manchester encoding. (chart)

 SPECIAL FEATURES: illustration; chart
 DESCRIPTORS: Ethernet; LAN; Network Architecture; System Design; Nodes;
  Collision Detection; Access Controls
 FILE SEGMENT: CD File 275

...   and padding fields is a 4-byte checksum for the entire frame.
     It should be noted that **Ethernet** is a 'connectionless' service. It
operates at the physical and **data** link layers and there is no handshaking
to acknowledges receipt of frames, or any error correction. On receipt of a
frame, nodes **strip** off the **preamble** , check for validity of format,
reject it if not addressed to that node, use the checksum to detect errors,
remove any **data** padding and finally pass the frame up to the higher
layers where the network protocols ensure **data** communication integrity.
     SYNCHRONISE CLOCKS
     Baseband Ethernet nodes put their signal onto the cable by raising
and lowering...

17/5,K/5   (Item 4 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01318258   SUPPLIER NUMBER: 07722552   (USE FORMAT 7 OR 9 FOR FULL TEXT)
FDDI standard fosters improved interoperability. (Fiber Distributed Data
   Interface)
Milligan, Gene E.
Networking Management, v7, n9, p66(4)
Sept, 1989

ABSTRACT: The Fiber Distributed Data Interface (FDDI) standard provides
both an internationally accepted basis for optical fiber communications
interoperability and a layered structure for value-adding variations
optimized to specific applications. Several examples are provided. FDDI is
optimized for large packet data transmission, but a superset, FDDI-II, is
designed for high-performance, real-time applications. The Physical Layer
Medium Dependent Protocol (PMD) defines physical interoperability, but a
single-mode (SMF) version facilitates connecting FDDI nodes farther apart
(up to 60 kilometers). Other FDDI standards with alternatives that are
described include: the Physical Layer Protocol, Media Access Control,
Station Management and Hybrid Ring Control. Trends in organization support
of FDDI are noted.
CAPTIONS: FDDI transmission formats. (chart); FDDI standard documents.
(table); FDDI-II channel allocation. (chart)

SPECIAL FEATURES: illustration; chart; table
DESCRIPTORS: FDDI Standard; Compatibility; Implementation; Connectivity;
 Fiber Optics; Communications Technology; Communications Equipment
FILE SEGMENT: CD File 275

...   latency adjustment function, which is key to reliable ring
operation.
      MAC (Media Access Control) provides for the **FDDI** transmission
protocol data units, media access, address **insertion** and detection,
operational timing, and error detection. Protocol **data** units comprise
tokens and frames. An **FDDI** frame (Figure 1B) consists of a **preamble** ,
starting deliminator, frame control, destination address, source address,
information field, error check, and end-of-frame deliminator. Figure 1
provides further **information** on both the **FDDI** token and frame formats.
      FDDI addresses are intended to be 48-bit mandatory and 16-bit
optional...

17/5,K/6   (Item 1 from file: 674)

085637
Peeping tools
Nine tools that can snoop on your employees.
Byline: TRAVIS BERKLEY
Journal: Network World   Page Number: 55
Publication Date: July 10, 2000
Word Count: 5117   Line Count: 454

Text:
... works with Microsoft Windows NT and Windows 2000. It also uses the
Microsoft Management Console and Microsoft **Data** Access. Not only can it
search the drives and shares across your domains, but it also aims...

... uses the same set of policies and filters. It works in two ways: Each
client agent monitors **file** activity in real time as items are saved,
moved or renamed. The central management console also lets...

...states that the overhead "is so small that it is not measurable." That's
a pretty bold **statement** , but rest assured that disk throughput didn't

suffer once FileScreen 2000 was installed and running.Out...

... screening groups are referenced by policies that determine what action to take when it finds a "bad" **file** . Policies can be configured individually or by workgroup. Additionally, filters can be employed within the policy to...

... can find ways around the restrictions. The sole criterion FileScreen 2000 uses is the name of the **file** , including the extension. A sneaky user could store all of their .jpg files as .jp...

... not a drawback, these functions could be a nice enhancement in future revisions. Looking for QuakersOur next **file** seeker is AntiGame Plus by DVD Software. AntiGame Plus was initially designed to find games that might ...

... box, AntiGame Plus Version 5.0 can detect 10,850 games. The program doesn't rely on **file** names as that would be an easy way to defeat detection. Instead, it looks for matches in **file** size and a signature of the **file** , which works like a checksum. If the **file** size and signature match AntiGame's database, the program declares a detection. This scheme isn't foolproof... associate other files to delete.By default, AntiGame scans only executable files (those with .exe or .com **file** extensions). You can also scan all files to catch Dynamic Link Libraries or other **file** types. In addition, AntiGame can scan archives, such as .zip files, which could catch a Napster installation...

... on each machine that you want to track. The client then communicates with a server to report **information** and check the gameplay policies.Loading the client can be done through any logon script or similar ... infractions can be accomplished using Simple Mail Transfer Protocol mail. There are seven variables that can be **inserted** into the message body to give the administrator a quick idea of what the problem is. For...

... a large number of predefined reports and graphs. Some are detail-oriented, while others summarize events. If **information** about a particular user's browsing habits is needed, it's easy to specify the user and... on-screen notifications by having the activity highlighted in a particular color and possibly playing a .wav **file** to go with it. This makes it very easy to see from across the room when a...

... E*trade fixed the problem. But this shows that you have to be careful about what you **put** **into** your dictionaries. Of course, if your climate is more temperate, Internet Manager could have been configured to...

... categories is "confidential." This category can be used to hold project code words, trademark names or other **information** . Message Inspector can then be set to watch for these words and phrases to make sure no one is leaking **information** . Of course, Message Inspector can watch for the standard fare of sexually explicit words, sports, gambling or...

... sent to an administrator for approval, then delivered as normal later. Message Inspector can also block certain **file** types. If you have no use for .jpg or .gif files at your company, it's easy quickly, but if there's one thing administrators like, it's up-to-date **information** . Checking the wireThe last category contains products that dig a little deeper. After using them for a...

... Windows platform, either as a single stand-alone installation, or in a client/server setup where the **data** is collected and stored on one machine and management and reporting takes place on another. The single...

...it must be installed at the appropriate place on your network to see and capture the relevant **data** - presumably as close to your Internet connection as possible. In addition to TCP/IP, LittleBrother Pro can...

...in real time your "top talker" - the user and workstation generating the most traffic. In addition, that **information** can be broken down into which sites he or she is trying to visit, and what services...

... a "top sites" report that shows the company's favorite hangout and who is frequenting it. This **information** can be detailed according to time connected or **data** transferred.LittleBrother Pro also rates the sites and services into four basic groups: neutral, productive, unproductive and...

... agents, as opposed to a complete and separate install at various spots. Each agent collects the same **information** and enforces the same policies. But the agents can all be controlled and managed from a central administration console, which by default is the first installed machine.If you like to have as much **information** as you can squeeze onto a screen, TrafficMax will be your best friend. There are a plethora...

... available, each updated in real time. Various graphs target specific layers, such as packet details and types, **Ethernet** details, TCP/User **Data** Protocol (UDP) statistics, and so forth. Charts are also available detailing specific values. Each can be generated... daily, weekly or customized intervals. The results can be stored or sent out via e-mail. The **file** formats include HTML, comma-separated value or .bmp and .jpg.TrafficMax can also be configured to watch...
... create a policy that will follow a user from workstation to workstation.TrafficMax puts a lot of **information** at your fingertips. In fact, if you open up all the windows that are available, you could easily suffer from **information** overload. Luckily, the screens are very configurable. Since TrafficMax goes to the trouble of creating HTML files ...

17/5,K/7   (Item 2 from file: 674)
DIALOG(R)File 674:Computer News Fulltext
(c) 2004 IDG Communications. All rts. reserv.

070254
DSL: Performance under pressure
Paradyne's MVL modem installs easily and performs well.
Byline: John Bass, Network World Test Alliance
Journal: Network World   Page Number: 60
Publication Date: November 16, 1998
Word Count: 1364   Line Count: 122

Text:
... remote PCs and a DSL Access Multiplexer (DSLAM) based on a telco's pre-mises. MVL allows **data** and voice transmissions simultaneously over the same twisted-pair wiring. The components negotiate **data** rates depending on the condition of the DSL loop. The negoti-ated rate is called the training...

... link. In each of our loop simulations, we noted worst-case training rates, which occurred when we **injected** noise at the receiving end of a traffic stream. As expected, we achieved the highest training rate while the phone was on hook because all the bandwidth was available for the **data**

channels. On our good link, this scenario resulted in an upstream and downstream rate of 768K bit...

... of 512K bit/sec upstream and 640K bit/sec downstream because the voice channel slightly overlaps the **data** channel and takes over when activated. Transmission rates on the **data** channel are reduced even when no one is speaking. How-ever, user response time is still equivalent...

... see Figure 1).In our throughput tests, we found a deficit of roughly 5% to 10% in **Ethernet** throughput compared with the DSL training rate. The shortfall is due to the inherent inefficiencies of converting **Ethernet** packets to run over the DSL link. We found cases in which **Ethernet** throughput ex-ceeded the training rate, but that was simply due to buffering. On bidirectional tests we...

...while the devices negotiated. It took approximately 10 to 12 seconds for the system to stabilize the **data** channel. This seems a little long, and it would be unacceptable if a phone were picked up...between themselves. We found that total bandwidth was less than the training rate because of interpacket gaps, **Ethernet preamble** bits and collisions. SetupWhile latency was sometimes a problem, Paradyne's easy installation claims held true. The...

... lets you connect it to a device that supports the 802.3Q standard for virtual LANs over **Ethernet** . This feature allows the DSLAM to tag the **Ethernet** frames for the DSL link the packets are coming from or destined for. Users can choose their...

... that can handle multiple 802.3Q streams per port.Users manage the MVL system through serial and **Ethernet** interfaces; Paradyne doesn't provide a Web interface for management. You can monitor the training rates, **data** rates, packet rates and other operational parameters of the modem and the DSLAM. Paradyne has published all...

... on the World Wide Web, which makes access easy. How-ever, all the manuals are posted in **file** form. We'd like to see the documentation also available in HTML to eliminate the need to...

... poor-quality loops. The ability to service multiple modems on each DSL link allows subscribers to forgo **Ethernet** connections in a small office by using MVL over existing phone cabling. With those benefits, we give...

...network industry, each bringing to bear years of practical experience on every review. For more Test Alliance **information** , including what it takes to become a member, go to www.nwfusion.com/alliance.